

APPLICATION FOR BENEFICIAL WATER USE PERMIT

AQUIFER TESTING ADDENDUM

ARM 36.12.121

Complete this addendum if a Beneficial Water Use Permit application is for a groundwater well.

Applicants are encouraged to confer with department staff prior to designing an aquifer test to ensure that the test will not have to be repeated, which may require additional expense. Department staff will provide guidance on testing procedures, monitoring, and reporting, but will not provide technical support or assistance.

On a separate attachment, provide the information required below. Attachments must be labeled as shown in the sections below (i.e.: ATA.3.a). If a section is not applicable, label the section as Not Applicable or NA.

Section 1. Attachments must make specific reference to the section item shown.

VARIANCE INFORMATION

- ATA.1.a** ☐ Applicant was granted a variance of the testing requirements. Provide a copy of the written variance and requested reporting information.
- ATA.1.b** ☐ Applicant was not granted a variance of the testing requirements. Provide the information below.

Section 2. Attachments must make specific reference to the section item shown.

AQUIFER TEST DATA FORM 633

- ATA.2.a** ☐ Provide an electronic Aquifer test data form no. 633, or equivalent showing the data recorded for the test.

Section 3. Attachments must make specific reference to the section item shown.

MINIMUM INFORMATION THAT MUST BE SUBMITTED WITH APPLICATIONS:

- ATA.3.a** Provide a topographic map with labeled locations of production and observation wells and water discharge point.
- ATA.3.b** Provide lithologic descriptions and drilling logs for all test wells.
- ATA.3.c** Provide distances between the pumping well(s) and the observation well(s), and depths, dimensions, and perforated intervals of each well as specified on Form No. 633.
- ATA.3.d** Provide wellhead elevations (preferably surveyed) and depth to static water level collected synoptically for a minimum of three wells for use in calculating the hydraulic gradient.
- ATA.3.e** Provide a description of testing methods.
- ATA.3.f** Provide Form 633 in electronic format with all information and data requested.

Section 4. Attachments must make specific reference to the section item shown.

MINIMUM TESTING PROCEDURES:

For any of the following, if the answer is "NO" or "NA", provide information explaining why on a separate attachment.

- ATA.4.a** YES ☐ NO ☐ NA ☐ Was pumping maintained at a constant discharge rate equal to or greater than the proposed pumping rate for the entire duration of the test?
- ATA.4.b** YES ☐ NO ☐ NA ☐ For a proposed use of 150 GPM or less and the proposed volume is 50 AF or less, was the pumping aquifer test duration at least 24 hours?

- ATA.4.c** YES ☐ NO ☐ NA ☐ For a proposed use greater than 150 GPM or a proposed volume greater than 50 AF, was the duration of the aquifer test at least 72 hours?
- ATA.4.d** YES ☐ NO ☐ NA ☐ Was the discharge of the pumped well measured with a reliable measuring device and recorded with clock time according to the schedule on Form 633?
- ATA.4.e** YES ☐ NO ☐ NA ☐ Was the discharged water conveyed a sufficient distance from the production and observation wells to prevent recharge to the aquifer during the test? Adequate water conveyance devices include pipe, large-diameter hose (e.g., fire hose), lined ditch or canal.
- ATA.4.f** YES ☐ NO ☐ NA ☐ Was one or more observation well completed in the same water-bearing zone(s) or aquifer as the proposed production well and close enough to the production well so that drawdown is measurable?
- ATA.4.g** YES ☐ NO ☐ NA ☐ Were the observation well(s) being pumped during the test?
- ATA.4.h** YES ☐ NO ☐ NA ☐ Were groundwater levels in the production well and the observation well(s) monitored at frequent intervals for at least two days prior to beginning the aquifer test?
- ATA.4.i** YES ☐ NO ☐ NA ☐ Were groundwater levels in the production well and observation well(s) measured with 0.01-foot precision according to the time schedules for drawdown and recovery specified on Form No. 633? Electronic pressure transducer/data logger instrumentation, electric well probes, pressure gauges on turbine pumped wells, or graduated steel tapes are acceptable methods of measuring groundwater levels.
- ATA.4.j** YES ☐ NO ☐ NA ☐ If additional production wells are required, were eight-hour duration drawdown and yield tests conducted for all additional wells?